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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/759,165	01/16/2001	Veronique Douin	05725.0827-00000	9808

7590

01/29/2002

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EXAMINER

WILLIS, MICHAEL A

ART UNIT

PAPER NUMBER

1617

DATE MAILED: 01/29/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Applicati n N .

09/759,165

Applicant(s)

DOUIN ET AL.

Examiner

Michael A. Willis

Art Unit

1617

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 October 2001.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-66 is/are pending in the application.
- 4a) Of the above claim(s) 4-17, 19-24, 26, 27, 29-37, 40-42 and 59-66 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3, 18, 25, 28, 38, 39 and 43-58 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s). _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

DETAILED ACTION

This supplemental Office Action replaces the Office Action mailed 15 January 2002 in order to indicate a shortened statutory period for reply set to expire 3 months from the mailing date of this communication. Form PTO-892 (Notice of References Cited), Form PTO-1449 (Applicant's IDS, papers number 4 and 6), and copies of the references cited herein were included in a previous Office Action, and have not been duplicated in this supplemental Office Action.

Applicant's response of 19 October 2001 is entered. Claims 1-3, 18, 25, 28, 38, 39, and 43-58 are pending. Claims 59-66 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected invention, there being no allowable generic or linking claim. Claims 4-17, 19-24, 26-27, 29-37, and 40-42 are withdrawn from further consideration by the examiner, 37 CFR 1.142(b), as being drawn to a non-elected species, there being no allowable generic or linking claim. Applicant timely traversed the restriction and election requirement in Paper No. 8, submitted 19 October 2001.

Election/Restrictions

1. Applicant's election with traverse of Group I, claims 1-58 in Paper No. 8 submitted 19 October 2001 is acknowledged. The traversal is on the grounds that it would not be unduly burdensome to search and examine the subject matter of all the claims as written. Applicant asserts that the subject matter of Groups II and III would appear to encompass the search and examination of the subject matter of Group I because all the claims recite at least one starch of specified formulae and at least one cationic conditioner as claimed. This is not found persuasive

because a search including the limitations of Groups II and III, including for example the terms “keratin, hair, or cosmetic” would not necessarily yield the prior art relevant to Group I. For example, the elected species of starch is disclosed by Koubek et al (US Pat. 5,641,349; Example 24) as a component in water-based adhesives used for example in cigarettes. It is the position of the examiner that a reference such as Koubek, disclosing the use of the elected species of starch, would not necessarily be found in a search incorporating the limitations of Groups II or III.

Therefore, it is the position of the examiner that the searches involved for each of Groups I, II, or III are not co-extensive with the others and represent a serious burden. The requirement is still deemed proper and is therefore made FINAL.

2. With respect to the requirement for an election of species, applicant elects the amphoteric starch of formula (I) wherein R, R', and R'' are hydrogen and n is equal to 2. It is noted that formula (I) does not contain an R'' group, so this limitation is not considered by the examiner to be part of the elected species. Applicant also elects the species of cationic silicones chosen from quaternary ammonium salts of formula (XIV) wherein R₁, R₂, and R₃ are CH₃ and R₄ is behenyl (C₂₀) as claimed in claim 39. The characterization of salts of formula (XIV) as cationic silicones and behenyl as C₂₀ has been disregarded as they appear to be in error. The elected species is understood as behenyltrimethylammonium salts. Applicant further elects the species of anionic surfactants chosen from alkyl ether sulfate salts. The requirement for an election of species is traversed on the grounds that the species disclosed do not represent an unreasonable number of species. It is noted that the claimed amphoteric starch alone requires six pages of text and formulas to fully define the claimed species. Therefore, it is the position of the examiner that the

number of claimed species represent a serious burden. The requirement is still deemed proper and is therefore made FINAL.

Specification

3. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper (see page 9, lines 1-2; page 11, line 7; page 14, lines 4-5; page 17, lines 7-8; page 30, lines 6-8; and page 32, lines 10-13). The material is considered to be essential because it refers to embodiments of the invention rather than mere background. Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

Claim Rejections - 35 USC § 112

4. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

5. Claims 1-3, 18, 25, 28, 38, 39, and 43-58 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

6. Claims 1, 57, and 58 are rejected for being unclear and vague due to the phrase "X⁻ is an anion chosen from anions derived from inorganic acids and anions derived from organic acids".

The metes and bounds of the limitation "derived from" are unclear to the examiner.

7. Claims 1, 57, and 58 are rejected due to the phrase "(b) bis-secondary diamine residues such as piperazine derivatives". The term "derivatives" is unclear and vague, such that the metes and bounds of the limitation are unclear to the examiner. Additionally, the phrase "such as" renders the claim indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

8. Claims 1, 57, and 58 are rejected for being confusing due to the phrase "D is chosen from direct bonds". The meaning of the phrase is unclear to the examiner. Clarification is required.

9. Claims 1, 57, and 58 are rejected for containing improper Markush groups due to the definition of R" which is defined by the phrase "which may be identical or different, are each chosen from a hydrogen atom, and alkyl groups comprising from 1 to 18 carbon atoms". The definition of R" is indefinite in the use of the term "comprising" which renders the structure of R" ambiguous. Similarly, the definitions of R13, R14, R15, R16, A1, B1 are ambiguous due to the use of the term "comprising". It is the position of the examiner that discrete, non-polymeric alkyl groups are ambiguous when defined as "comprising" a certain number of carbon atoms.

10. Claim 18 is rejected for being unclear and vague due to the phrase "X⁻ is an anion chosen from ...anions derived from organic acids". The metes and bounds of the limitation "derived from" are unclear to the examiner.

11. Claim 18 is rejected for containing improper Markush groups due to the definitions of R1, R2, R3, R4, R5, R6, R9, R10, R11, R12, R13, and R14. It is the position of the examiner that

discrete, non-polymeric alkyl groups are ambiguous when defined as “comprising” a certain number of carbon atoms.

12. Claim 18 is rejected for being vague and unclear due to the term “hydrocarbon-based radical”. The metes and bounds of the limitation are unclear to the examiner.

13. Claims 28 and 38 are rejected for containing improper Markush groups due to the definition of hydroxyalkyl radicals “comprising from 1 to 4 carbon atoms” and fatty aliphatic radicals “comprising 8 to 30 carbon atoms” or “comprising 17 to 30 carbon atoms”. It is the position of the examiner that discrete, non-polymeric groups are ambiguous when defined as “comprising” a certain number of carbon atoms.

14. Any remaining claims are rejected for depending from indefinite base claims.

Claim Rejections - 35 USC § 103

15. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

16. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

17. Claims 1-3, 18, 25, 28, 38, 39, and 43-58 rejected under 35 U.S.C. 103(a) as being unpatentable over Janchipraponvej (US Pat. 4,954,335) in view of Sweger et al (US Pat. 5,482,704) and Martino et al (US Pat. 6,210,689).

18. Janchipraponvej teaches clear conditioning compositions and methods to impart improved properties to hair. The compositions provide excellent wet comb and dry comb properties to the hair, and the hair demonstrates improved physical and cosmetic properties (see col. 7, lines 21-48). The compositions of Janchipraponvej contain quaternary ammonium compounds (see col. 8, line 8-47). Behenyltrimethylammonium chloride is specifically taught (see col. 10, lines 1-29). Weight percentages of the quaternary ammonium compound are taught (see col. 10, lines 30-45). The reference teaches the use of thickening agents such as polyacrylic acid derivatives, and that the resulting compositions are relatively viscous compositions that are stable to phase separation for an indefinite period of time (see col. 16, lines 9-32). A preferred range of pH from 5.5 to 6.5 is taught (see col. 14, lines 5-18). Additional surfactants are included in the composition (see col. 14, line 19 through col. 15, line 18). The reference lacks modified starch and anionic surfactants.

19. Sweger teaches cosmetic compositions containing amino-multicarboxylate modified starch. Example 1 illustrates a starch modified with 2-chloroethylaminodipropionic acid (CEPA) (see col. 6, line 44 through col. 7, line 10). The starch derivatives provide thickening and emulsion stabilization and exhibit good appearance and feel to the skin (see col. 1, lines 32-37; col. 9, lines 60-63). The reference teaches that polyacrylic acid polymers such as Carbopol® resins are the leading thickeners and emulsion stabilizers in the skin care and hair care markets.

The reference further teaches that CEPA-modified starch gives stable viscosity over time and is superior to the Carbopol® standard (see col. 9, lines 1-6).

20. Martino teaches the use of alkyl ether sulfate salts as well know surfactants in cosmetic formulations (see col. 5, lines 11-26). The reference teaches that certain alkyl ether sulfate salts are particularly useful in combination with keratin treating cosmetic compositions containing amphoteric starch derivatives as disclosed in the reference (see abstract and col. 5, lines 16-17).

21. It would have been obvious to one of ordinary skill in the art at the time the invention was made to have modified the compositions of Janchipraponvej by the addition of amphoteric starches as taught by Sweger and anionic surfactants as taught by Martino in order to benefit from the improved results of the amphoteric starches with respect to viscosity and thickening as taught by Sweger.

Conclusion

22. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Jeffcoat et al (US Pat. 5,871,756) teaches cosmetics containing thermally-inhibited starches. Example 26 discloses the elected species of modified starch. Hansenne-Richoux et al (US Pat. 5,330,758) discloses the use of behenyl trimethylammonium chloride in cosmetic compositions (see col. 5, line 1-36). Babenko (US Pat. 6,277,893) discloses the use of amino-multicarboxylate starch derivatives in cosmetic compositions.

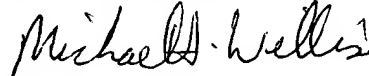
Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael A. Willis whose telephone number is (703) 305-1679. The examiner can normally be reached on Mon. to Fri. from 9 a.m. to 5:30 p.m.

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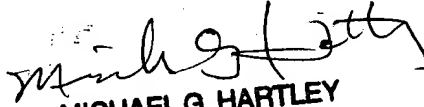
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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Minna Moezie can be reached on (703) 308-4612. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9306 for regular communications and (703) 872-9307 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is (703) 308-1234.


Michael A. Willis
Examiner
Art Unit 1617

January 25, 2002


MICHAEL G. HARTLEY
PRIMARY EXAMINER
